## Mont Ventoux, 1973-1977

## By L. McLEOD, B.Sc., M.Phil., F.R.E.S.\*

The main objective of this paper is to bring up to date my species list of the butterflies of Mont Ventoux (McLeod, 1972, 1973). The year 1977 was the tenth year of my collecting on this mountain, it was also one of the wettest and coldest years on record. The bad weather took Its toll on insects and on possible field trips, and as a result 1977 was very unproductive. This cannot be said however for the previous four years. Since I last wrote of my collecting experiences on Ventoux (McLeod, 1973) my species list of butterflies has increased by 12 to a total of 134. It is obvious that populations of certain butterflies and other insects can exist in very small restricted areas where the required habitats are to be found. Some of these areas are very small indeed and it has taken me ten years of searching to establish the presence on Mont Ventoux of certain of the species listed here.

Apaturia ilia Schiff. is an example of a butterfly with a restricted distribution in the Vaucluse. My first encounter with this butterfly was near Mormoiron on 8th June, 1974, when a male came to drink while I was washing my car. Until that moment I had no idea that A. ilia was present in the area. I captured and later released the individual and during the next few days saw a total of four others, two of them at low altitude on the southern face of Ventoux.

Scolitandes orion Pallas also flies in early June and is well established in the Gorges of the Nesque and the adjacent Combes. Although the larval foodplant is widespread, the major concentrations of this butterfly are always at the bottoms of the gorges and only rarely have I taken a specimen on the lower road from Villes sur Auzon to Sault. My first specimens were taken on 1st June, 1974, while collecting with Mr. J. A. Bond.

*Euchloe tagis* Huebner is widespread over the lower slopes of both the southern and northern faces of Ventoux. The cul-de-sac valley behind Les Valettes and Ste. Marguerite (Vallee du Rieufroid) is a particularly fine locality for this species during late May, as also is the Combe de la Canaud, running from Flassan to the Perrache Plateau.

Dr. C. G. M. de Worms has been a regular visitor to Mont Ventoux since 1974 (de Worms, 1974, 1976, 1977), and in 1975 brought to my notice the presence of *Thecla betulae* L. on the mountain. Until his capture of a fine female on 26th August (de Worms, 1976) I had not noticed its presence. I have since been on the look out for this nice hairstreak and I was rewarded this year by observing two *betulae*. The first settled on my terrace at St. Pierre de Vassols on 5th September and the other I observed on the Grande Garrique, above Bedoin, two days later.

On 16th June, 1973, while collecting *Erebia triaria* de Prunn. at Mont Sirein on the north face of Ventoux, I met

the Bartholomew family intent upon the same purpose. Later, while discussing the butterflies of the area, Richard Bartholomew informed me of a population of *Pseudoterqumia fidia* L. not far from Beaumes de Venise. At that time the population was well established and adults were to be found flying in late July/early August on the rocky slopes behind the chapel of Notre Dame d'Aubune. However, during the drought of 1976, a fire swept along the ridge destroying most vegetation and I am not certain how this will have affected the *fidia* population. I have also taken *fidia* in the lavender fields at the end of the valley of Rieufroid, beyond Les Vallettes, and also at Mormoiron, Flassan, and Bedoin. Luquet (1977) also mentions other localities for this species.

Leptidea duponchelli Stdgr. is also locally common. Lafare, a village near to the Dentelles de Montmirail, is a noted locality, mentioned to me by Richard Bartholomew. I have also taken single specimens of this species on several occasions on Mont Ventoux during the last five years.

*Pieris manni* Meyer was a late addition to my list because of its close resemblance to *P. rapae* L. and to my lack of interest in the latter species. Both *manni* and *rapae* often fly together during June and are widespread over the Carpentras Plain, lower slopes of Ventoux and Gorges of the Nesque.

Having recently sorted through my collection, I realised that in error I omitted both *Melitaea phoebe* Schiff. and *Hesperia comma* L. from my initial list (McLeod, 1973). Both of these species have always been widespread and common on Ventoux and should have been listed previously.

*Thymelicus lineola* Ochs. is not common on Mont Ventoux but I have taken the occasional specimen on the Perrache Plateau and Combe de la Canaud during July.

In my notes of 1973 I mentioned my ambition to photograph the life cycle of Iolana iolas Ochs. I managed to locate bushes of Colutea arborescens, its larval foodplant, on the lower slopes of Ventoux in 1973. An extensive study of the population ecology of this lycaenid is now almost complete. I exhibited a series of photographs of the life cycle at the 1975 annual exhibition of the British Entomological and Natural History Society. The local population of I. iolas is spread over a fairly large area but nevertheless is apparently in a precarious situation, being liable to drastic fluctuations in numbers resulting from adverse spring weather and severe scramble competition in the larval stages. Man's activities in replanting one of the best localities with young cedar trees following clearing of natural vegetation, does not help the situation. Many readers will know the coloured conservation poster produced by the Federation Française des Sociétés des Sciences Naturelles. Three of the butterflies illustrated, I. iolas. Zerinthia rumina L. and Papilio alexanor Esp. were to be found in areas on the south face of Ventoux which have recently been "bulldozed" in parallel strips and replanted with conifers. Undoubtedly the local populations of butterflies will still survive, albeit in fewer numbers and more restricted than

previously. It is sad that an area known as a major locality for these species (Bigot 1957, Dufay 1965, Kovache 1927) can be treated in this way. It is this slow chipping away of suitable habitat which eventually causes a species to disappear from an area.

The saying "actions speak greater than words" can be particularly applied to the F.F.S.S.N. in this case. Their words "Ces Insectes sont menacés. Aidez-nous à les sauver" have a rather hollow ring to them following the events described above. I hope that the seeding and replanting of *Colutea arborescens* which I have carried out will in the future help counteract the adverse effects which the present reaforestation would have had on the local population of *I. iolas*.

It is interesting to note that Bigot, in his paper on the biogeography of provence lepidoptera (Bigot, 1957), did not mention *I. iolas.* Was this an intentional omission or was *iolas* not present in the area prior to 1957? Perhaps these questions will never be answered but I suggest that perhaps Bigot failed to locate *iolas*, as did Mr. L. Gauthier of St. Cecile les Vignes who collected on Ventoux over a period of forty years.

A similar situation exists concerning a paper on the *Erebia* species of Ventoux (Chobaut, 1910, 1913). In this paper there is no mention of *E. ligea* which is now very common on Ventoux in the latter half of July. Bigot (1957) also omitted *E. ligea* from his list, probably because he merely repeated the list of *Erebia* species produced by Chobaut. Unfortunately, this very same error has been reproduced in the recent official guide to Mont Ventoux. Included in the guide is a photograph of the "five" *Erebia* species to be found on Mont Ventoux (Macabet, 1977).

Both Dufay (1965) and Luquet (1977) mention the rarity in Provence of the female form *valesina* of *Argynnis paphia* L. I record here two other captures of this "dark lady". First by Mr. J. A. Bond, near to the chapel of Notre Dame des Anges, Mormoiron, on 11th July, 1973, and secondly by Mr. R. Charman between Flassan and La Gabelle on 20th July, 1976.

Some readers will be interested to hear of the existence of a population of Zerinthia polyxena Schiff. not far from Carpentras. Although this species cannot be included in the list of butterflies of Mont Ventoux, its occurrence in this area of the department of Vaucluse is unusual and worthy of note. The species is rare in Haute Provence and is very localised wherever it occurs (Dufay, 1965). Colonies are known in the gorges of Esparron-la-Batie in the upper valley of the Sasse (north of Digne) and single specimens have been taken at Noyers-sur-Jabron (north of Montagne de Lure) and at Digne. Although Bricoux (1975) mentions the Vaucluse in his distribution of polyxena he does not cite an exact locality (Bricoux, 1975, p. 27) and does the same for Z. rumina, except that he includes the famous locality of Flassan under the department of Var (Bricoux, 1975, p. 28). The population of Z. polyxena near to Carpentras is located in a very small area completely enclosed by fruit orchards. The site is regularly flooded in winter months and is thus very unsuitable for agriculture. During the flight period of Z. polyxena in April, the site is a mass of flowers of Narcissus poeticus and the ground is still very damp and slightly marshy. Aristolochia rotunda, the larval foodplant of Z. polyxena, grows in dense clumps amongst the sedges. The habitat is certainly an unusual one for this region of France. The Z. polyxena butterflies are never very numerous and rarely very active because of cool weather and strong winds. They seem to prefer to bask in the sun in sheltered positions. I have photographed the entire life cycle of this species and of Z. rumina which is found on the dry, arid lower slopes of Mont Ventoux. The photographs were exhibited at the 1975 Annual Exhibition of the British Entomological and Natural History Society.

On 17th June, 1973, I captured three interesting specimens, one of which was lost on the way back to my car. I first thought them to be a variety of *Plebicula amanda* Schn. but I now believe them to be a hybrid, either of *amanda* x *bellargus* or *amanda* x *escheri*. The specimens are the same size as an average *amanda* and have the same underside markings, but the blue is much deeper than the light blue of *amanda* and the orange submarginal spots of *amanda* are here a deep red. I have yet to examine the genitalia.

The northerly migration of Vanessa cardui L. through the Vaucluse appears to be an annual event, but in some years it is hardly noticeable because of low numbers of butterflies. I recorded a fairly strong migration of V. cardui in 1977 from 25th to the 27th March. During the migration temperatures were 20-22°C. but on 27th March the air temperature dropped suddenly to  $-3^{\circ}$ C. and was 5°C. on 29th March. This sudden fall in temperature completely stopped the migration and it was only on 30th March when temperatures rose that I noticed a slight movement of cardui again. On 31st March and afterwards no further migration took place. The reports of cardui sightings in England (Sankey Barker 1977, Bottomley 1977, Pleasant 1977) are much earlier in March, and were obviously not connected with this major migration.

Lampides boeticus L. can occasionally be taken on Mont Ventoux and the specimens are usually very fresh. Having carried out extensive studies on Iolana iolas, many hundreds of seed pods of Colutea arborescens have been opened and the larvae within identified. No L. boeticus larvae have been found. It is possible that another foodplant is concerned, but I suggest that the presence of L. boeticus is the result of larvae having been imported from Spain in garden peas. On 8th January, 1977, I purchased imported peas in Carpentras which had several boeticus larvae within the pods. I have experienced the same thing on several other occasions (e.g. McLeod, 1973, p. 212). While writing this paper on 28th October, 1977, I observed a lycaenid feeding on garden flowers outside my office. On examination it proved to be a fine male boeticus.

Although generally a poor year for insects, 1977 will go

down in my records as a memorable year for Nymphalis polychloros L. The severe weather of spring caused a total failure of the cherry crop and as a result the local fruit growers did not bother to spray their cherry trees with insecticides. The enormous numbers of polychloros larvae were first noted by me on 27th April when I found several cherry trees on the Carpentras Plain and Mazan Plateau completely defoliated. Following this discovery, I searched for larvae in many other localities around Mont Ventoux where cherry trees are grown. In all of them, large clusters of larvae could be found, and near to Caromb I located approximately fifty infested trees each with 200-300 larvae per tree. While observing them over a number of days, certain trees were completely cleaned of larvae by birds. Once the large 5th instar had been achieved the larvae were apparently left unharmed by birds because of their hard spines. I raised many butterflies from larvae collected in the field and was surprised at the lack of parasitism.

## Species list of Rhopalocera taken on Mont Ventoux between 1968 and 1977

PAPILIONIDAE: 1. Papilio machaon L., 2. Papilio alexanor Esp., 3. Iphiclides podalirius L., 4. Zerinthia rumina L., 5. Parnassius apollo L. PIERIDAE: 6. Gonopteryx rhamni L., 7. Gonopteryx cleopatra L., 8. Aporia crataegi L., 9. Colias australis Vrty., 10. Colias crocea Geoff., 11. Colias hyale L., 12. Anthocaris euphenoides Stdgr., 13. Anthocaris carda-videos L., 14. Euchlos eupenic Bil., 15. Euchlose tagis Hueb., 16. Pontia mines. L., 14. Euchloe ausonia Bil., 15. Euchloe tagis Hueb., 16. Pontia daplidice L., 17. Pieris napi L., 18. Pieris manni Meyer, 19. Pieris rapae L., 20. Pieris brassicae L., 21. Leptidea sinapis L., 22. Leptidea duponcheli Stdgr.

cheli Stdgr. LYCAENIDAE: 23. Heodes tityrus Poda, 24. Heodes alciphron Rott., 25. Lycaena phlaeas L., 26. Lampides boeticus L., 27. Everes argiades Pall., 28. Everes alcetas Hffgg., 29. Cupido minimus Fuess., 30. Celastrina argiolus L., 31. Philotes baton Berg., 32. Scolitandes orion Pallas., 33. Maculinea arion L., 34. Plebicula amanda Schn., 35. Plebicula dorylas Schiff., 36. Plebicula escheri Hueb., 37. Plebicula thersites Cant., 38. Plebejus argus L., 39. Cyaniris semiargus Rott., 40. Polyomatus eros Ochs., 41. Polyomatus icarus Rott., 42. Lysandra coridon Poda., 43. Lysandra bellargus Rott., 44. Lysandra hispana H.-Sch., 45. Agrodiatus dolus Hueb., 46. Agrodiatus damon Schiff., 47. Aerodiatus ripartii Frey. John R. Borning as Roth, 44. Lyaanna Inspira In-Solit, 45. Agrodiatus dolus Hueb., 46. Agrodiatus damon Schiff., 47. Agrodiatus ripartii Frey., 48. Glaucopsyche alexis Poda., 49. Glaucopsyche melanops Boisdyl, 50. Iolana iolas Ochs., 51. Aricia allous Gey., 52. Callophrys rubi L., 53. Quercusia quercus L., 54. Nordmannia ilicis Esp., 55. Nordmannia acaciae Fab., 56. Nordmannia esculi Hueb., 57. Strymonidia spini Schiff., 59. Thede besuch L. 58. Thecla betulae L.

NYMPHALIDAE: 59. Apatura ilia Schiff., 60. Limenitis reducta Stdgr., 61. Euphydryas aurinia Boisdvl., 62. Melitaea didyma Stdgr., 63. Melitaea cinxia L., 64. Melitaea diamina Lang., 65. Melitaea phoebe Schiff., 66. Mellicta deione Gay., 67. Mellicta parthenoides Kef., 68. Mellicta athalia Mellicta deione Gay., 67. Mellicta parthenoides Kef., 68. Mellicta athalia Rott., 69. Clossiana euphrosyne L., 70. Clossiana dia L., 71. Brenthis ino Rott., 72. Brenthis daphne Schiff., 73. Pandoriana pandora Schiff., 74. Argynnis paphia L., 75. Fabriciana adippe Schiff., 76. Mesoacidalia aglaja L., 77. Fabriciana niobe L., 78. Issoria lathonia L., 79. Vanessa cardui L., 80. Vanessa atalanta L., 81. Inachis io L., 82. Polygonia egea Cr., 83. Polygonia c-album L., 84. Nymphalis antiopa L., 85. Nymphalis polychloros L., 86. Aglais urticae L. SATYRIDAE: 87. Pararge aegeria L., 88. Lasiomatta megaera L., 89. Lasiomatta maere L., 90. Lasiomatta petropolitana Fab., 91. Melanargia russiae Boisdvl., 92. Melanargia galathea L., 93. Melanargia occitanica Esp., 94. Coenonympha arcania Stdgr., 95. Coenonympha dorus Esp., 96. Coenonympha pamphilus L., 97. Maniola jurtina L., 98. Pyronia

bathseba Fab., 99. Pyronia tithonus L., 100. Pyronia cecilia Vall., 101. Hyponephele lycaon Kuhn., 102. Pseudotergumia fidia L., 103. Satyrus ferula Fab., 104. Satyrus actaea Esp., 105. Brintesia circe Fab., 106. Chazara briseis L., 107. Minois dryas Scop., 108. Arethusana arethusa Schiff., 109. Hipparchia fagi Scop., 110. Hipparchia alcyone Schiff., 111. Hipparchia statilinus Hufn., 112. Hipparchia semele L., 113. Erebia meolans de Prunn., 114. Erebia ligea L., 115. Erebia triaria de Prunn., 116. Erebia epistygne Hueb., 117. Erebia scipio Boisdvl., 118. Erebia

The Erebia epistygie Falco., 117. Erebia scipio Bosdyl., 118. Erebia montana de Prun., 119. Erebia neoridas Boisdy.
HESPERIIDAE: 120. Pyrgus fritillarius Poda., 121. Pyrgus foulquieri Obthr., 122. Pyrgus malvae L., 123. Erynnis tages L., 124. Gegenes pumilio Hoff., 125. Carcharodus lavatherae Esp., 126. Carcharodus alceae Esp., 127. Ochlodes venatus Brem. & Grey, 128. Thymelicus sylvestris Poda., 129. Thymelicus acteon Rott., 130. Thymelicus lineola Ochs., 131. Spialia sertorius Hoff., 132. Hesperia comma L.
NEMEORUDAE: 133. Homeoric husine I.

NEMEOBIIDAE: 133. Hamaeris lucina L. LIBITHEIDAE: 134. Libithea celtis Laich.

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NEW AND RARE MOTHS IN EASTBOURNE. — Upon the evening of the 19th October, 1977 I took an example of Helicoverpa armigera Hbn. (Scarce Bordered-straw), possibly a migrant and a species that has never before been recorded from Eastbourne. Earlier, upon the 15th October, I took a single Aporophyla nigra Haw. (Black Rustic) for which the only other records for here are singletons listed in Salvage (1952) per D. Hillman and Adkin (1930). - MARK PARSONS, 43 Kings Avenue, Eastbourne, Sussex.